

Draft
Portable Equipment Workgroup
ATCM Fleet Calculation Methodology
7/30/03

To determine the fleet weighted emission factor, follow the directions below:

1. For each engine, multiply horsepower by emission factor (grams per horsepower-hour) and annual hours of operation **[hp x EF x hrs]**
2. For each engine, multiply horsepower by the annual hours of operation **[hp x hrs]**
3. After calculating (hp x EF x hrs) for each engine, sum (hp x EF x hrs) for entire fleet **[total (hp x EF x hrs)]**
4. After calculating (hp x hrs) for each engine, sum (hp x hrs) for entire fleet **[total (hp x hrs)]**
5. Divide [total (hp x EF x hrs)] by [total (hp x hrs)], the resulting value is the fleet weighted emission factor

Example

Year of Manufacture	HP	PM Emission Factor	Operating Hours per Year	HP*EF*Hours	HP*HR
98	85	0.69	500	29,325.0	42,500
77-81	90	0.84	100	7,560.0	9,000
77-81	131	0.55	50	3,602.5	6,550
87-91	295	0.38	100	11,210.0	29,500
96-02	418	0.15	500	31,350.0	209,000
77-81	278	0.53	50	7,367.0	13,900
	Totals		1300	90,414.5	310,450

$$\text{Fleet weighted Emission Factor} = \frac{\text{total (hp x EF x hrs)}}{\text{total (hp x hrs)}} = \frac{90,414.5}{310,450} = 0.29$$